

In addition, claim 2 has been amended to replace the word "mixture" with -- mixture--. Applicants respectfully submit that the original wording reflected a typographical error. In addition, claim 11 has been amended to add the word --comprising-- between "container" and "an amount" in line 2. Claim 11 has also been amended to replace the word "of" between "mixture" and "the flare" with the word --to-- in line 8.

With respect to the rejection of the claims under 35 U.S.C. §103(a) as being unpatentable over Bombard in view of Rudat, Applicants respectfully submit that the claims distinctly define the present invention over any of the art of record, taken alone or in combination, for the reasons that follow.

More specifically, independent claim 1 defines a method of cleaning a pressurized container comprising the steps of: (1) providing a pressurized container containing an amount of anhydrous ammonia therein; (2) injecting a quantity of heated nitrogen gas into the container to form a nitrogen/anhydrous ammonia mixture; (3) venting the nitrogen/anhydrous ammonia mixture to a flare; and (4) repeating the injection of heated nitrogen gas into the container and venting to the flare until the concentration of the anhydrous ammonia within the mixture is less than or equal to about 10,000 ppm. Nothing in the art of record teaches or suggests this combination of steps to clean a pressurized container containing anhydrous ammonia.

Rather, Bombard merely teaches a system for drying and ventilating jet fuel tanks for reducing the fuel fume level from residual fuel in an emptied fuel tank. Preliminarily, it should be noted that the goal of the Bombard patent (to reduce the amount of residual fuel in a tank) is not even similar to the present invention, in that the goal of the present invention is to reduce an amount of anhydrous ammonia from a pressurized container, not

jet fuel from a jet fuel tank. Moreover, the steps, machinery, and overall system are vastly different. Bombard uses a closed system, and a series of pumps and suctions to remove air and vaporized jet fuel from the fuel tank. The air is forced through a vapor recovery unit to cause condensation of the vaporized jet fuel for collecting the jet fuel. The air is then heated and forced back into the fuel tank and the process is repeated until the walls of the tanks are dry. A vacuum hose is then added to the fuel tank to remove the puddles of fuel within the fuel tank.

The present invention, however, utilizes a system and a method that are vastly different from the Bombard patent. A quantity of heated nitrogen is injected into a pressurized container, such as a mobile pressurized railcar, having a quantity of anhydrous ammonia contained therein. The nitrogen gas combines with the anhydrous ammonia to form a nitrogen gas/anhydrous ammonia mixture. The mixture is then released from the container to a flare, where the anhydrous ammonia is incinerated. The method is repeated until the concentration of anhydrous ammonia reaches a predetermined level.

The method described in the present invention can accomplish efficient cleaning of the container without the series of pumps or vacuums that is required by Bombard. Heating the nitrogen gas in the present invention provides sufficient pressure within the container so that merely opening a valve between the container and the flare allows the mixture to vent to the flare and be incinerated. In addition, the system described in the present invention is not a closed loop, in that the nitrogen gas utilized to form the nitrogen/anhydrous ammonia mixture is released to the atmosphere after venting to the flare. More specifically, the nitrogen gas is not recovered and sent back to the container after the material to be removed (i.e. anhydrous ammonia) is removed from the nitrogen

gas, as is described in Bombard. This ensures that the nitrogen gas injected into the container comes from a source of pure nitrogen that is free of anhydrous ammonia, and therefore more efficiently vaporizes and combines with the anhydrous ammonia to form the nitrogen gas/anhydrous ammonia mixture.

It is respectfully submitted that Bombard cannot be combined with Rudat to arrive at the claimed invention. Bombard describes a closed system, whereby fuel vapor is recovered, and air is recirculated back into the fuel tank. The flare described by Rudat cannot be utilized in the Bombard system without fundamentally changing the Bombard system from a closed system to an open system.

Moreover, one of ordinary skill in the art would never have been motivated to modify Bombard with Rudat, assuming the patents were combinable, to arrive at the claimed invention. A teaching, suggestion, or incentive must exist to make the combination made by the Applicants. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1983). No teaching, suggestion or incentive exists to combine Bombard with Rudat to arrive at the claimed invention. In fact, the Bombard system actually teaches away from utilizing anything like the flare as claimed in the present invention, because the flare would fundamentally change the nature of the system described in Bombard. Bombard describes a closed loop system wherein fuel vapor is recovered from a quantity of air via a condensor, and the air is then recirculated back into the fuel tank. As described above, the present invention relates to a method of utilizing a system having an open end, wherein the nitrogen gas is thereafter released into the atmosphere after venting the mixture to the flare. No anhydrous ammonia is recovered, but instead is cleanly and efficiently incinerated in the flare.

With the analysis of the deficiencies of the Bombard and Rudat patents in mind, as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to produce the claimed invention. Therefore, *prima facie* obviousness has not been established by the Examiner as required under 35 U.S.C. §103(a). Since the Examiner has failed to establish a *prima facie* case of obviousness in combining Bombard with Rudat, the rejection of the claims under 35 U.S.C. §103(a) is improper and should be withdrawn.

Claims 2-10 depend from independent claim 1; and claims 12-20 depend from independent claim 11. These claims are further believed allowable over the references of record for the same reasons set forth above with respect to their parent claims since each sets forth additional steps of Applicants' novel methods.

CONCLUSION

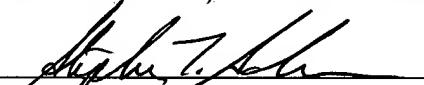
In view of the foregoing remarks and amendments, Applicants respectfully submit that all of the claims in the application are in allowable form and that the application is now in condition for allowance. If, however, any outstanding issues remain, Applicants urge the Examiner to telephone the Applicants' attorney so that the same may be resolved and the application expedited to issue. Applicants respectfully request the Examiner to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

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MARKED UP VERSION TO SHOW CHANGES MADE

In the Specification

Please replace the second full paragraph on page 9, lines 19-27, with the following paragraph:

--For example, an apparatus may remove a sample of gas from one of the sideports 404 via step 16 to determine if there is a leak in a valve or seal within the protective housing 406. The apparatus may include any device capable of determining a chemical composition of a volume of air, such as, for example, a [Draeger®] DRAEGER® detector or a multi-gas tester manufactured by Industrial Scientific Corporation ("ISC"). A [Draeger®] DRAEGER® detector may measure the chemical composition in ppm. The multi-gas tester may detect an oxygen "lower explosion limit" ("LEL") of a volume of gas. The multi-gas tester may test for the LEL by creating a combustion of the gas in the sample and sensing the heat produced. The heat produced is directly related to the percent LEL of the sample.--

Please replace the third full paragraph on page 12, lines 16-29, with the following paragraph:

--The sample taken from the container 402 may be sampled, tested and verified via step 116. Specifically, a "commodity sampling device" ("CSD") may preferably be connected to the pipe leading from the vapor valve 408. However, the sample may be taken as noted with respect to step 112, from any pipe or valve having direct access to the interior of the container 402. The vapor valve 408 may then be opened to allow vapors within the container 402 to flow to the CSD. An amount of vapor, preferably enough to

fill the sampling device to half full, may then be removed from the container 402. The CSD may be a [Draeger®] DRAEGER® apparatus or any other sampling device and may be utilized to verify the identity of the contents of the container 402. This verification may ensure that the chemical or chemicals contained therein are properly identified and, therefore, handled safely and properly during the cleaning of the container 402. If the pressure of the chemical is over a predefined level, such as preferably 100 psi, or if the weight of the chemical within the container is above a predefined level, such as preferably 2000 pounds, then the container 402 may be removed from the cleaning process.--

In the Claims

Please amend the claims as follows:

1. (Amended) A method of cleaning a pressurized container, the method comprising the steps of:

 providing a pressurized container containing an amount of anhydrous ammonia wherein the container has inlet and outlet valves;

 injecting a quantity of heated nitrogen gas into the container to form a nitrogen/anhydrous ammonia mixture; and

 venting the nitrogen/anhydrous ammonia mixture to [the] a flare; and

 repeating the injection of the container with heated nitrogen gas and venting the mixture to [a] the flare until the concentration of anhydrous ammonia is less than or equal to about 10,000 ppm.

2. (Amended) The method of claim 1 further comprising the steps of:

providing a natural gas inlet for feeding natural gas to a burn ring within the flare;

feeding the nitrogen/anhydrous ammonia [mixture] mixture to the burn ring.

9. (Amended) The method of claim 1 further comprising the steps of:

inspecting the container for leaks via a leak detection apparatus; and

stopping the cleaning of the container if a leak of the nitrogen/anhydrous ammonia mixture is found [having] wherein said anhydrous ammonia is present in the nitrogen/anhydrous ammonia mixture emanating from the leak at a concentration of at least 50 ppm.

11. (Amended) A method of cleaning a pressurized container, the method comprising the steps of:

providing a pressurized container comprising an amount of anhydrous ammonia wherein the container has a plurality of valves;

injecting a quantity of heated nitrogen gas into the container to form a nitrogen/anhydrous ammonia mixture;

venting the nitrogen/anhydrous ammonia mixture to a flare; and

repeating injecting the container with the heated nitrogen gas and venting the mixture [of] to the flare until the concentration of the anhydrous ammonia is at most about 50 ppm.

13. (Amended) The method of claim 11 further comprising the steps of:

inspecting the container for leaks via a leak detection apparatus; and

stopping the cleaning of the container if a leak of the nitrogen/anhydrous ammonia mixture is found [having] wherein said anhydrous ammonia is present in

the nitrogen/anhydrous ammonia mixture emanating from the leak at a concentration of at least about 50 ppm.

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